essence, the substances described below can be used to produce a foaming or fizzing sensation directly to the wearer's skin.

[0095] As noted above, the fizzing element **150** includes a system capable of generating a gas upon being wetted. The gas that is produced in the fizzing element **150** upon wetting interacts with one or more surfactants, which are discussed below, and produces foam and causes it to press against the skin of the wearer to alert the wearer that the absorbent article **20** has been insulted.

[0096] In one aspect, the system capable of generating gas upon being wetted includes at least one acid and at least one base. The acid and base react together upon being wetted to produce a gas that can be, for example, carbon dioxide gas. The exact gas produced by the gas producing system is not critical, so long as the gas produced is substantially non-harmful to the skin of the wearer.

[0097] In another aspect, the system capable of generating a gas upon being wetted includes a urine-or-other-body-exudates-soluble effervescent solid material produced in such a manner such that a pressurized gas is trapped within cells located in the solid material. When the solid material having pressurized gas-containing cells is contacted with urine or other body exudates, the solid material begins to dissolve and the pressurized gas is released from the cells during dissolution of the solid material. This gas can interact with the surfactant to produce foam and bubbles.

[0098] In this aspect, the soluble effervescent solid material can include a sugar compound such as a mono-saccharide, di-saccharide, or poly-saccharide that has been infused with a gas that is substantially non-reactive with human skin. Suitable gases for infusion into a solid material include, for example, carbon dioxide, air, nitrogen, argon, helium, other substantially inert gases, and combinations thereof. Specific examples of saccharides that can be used in accordance with the present disclosure include glucose, fructose, sucrose, lactose, maltose, dextrin, cyclodextrin, and the like, alone or in combination. Also, a mixture of sucrose with corn syrup (containing glucose, maltose, and dextrin) can be used in accordance with this aspect of the present disclosure to produce a gas-containing effervescent agent. Other examples of compounds that are capable of being prepared in such a manner as to trap pressurized gas in cells include, for example, water soluble compounds such as salts, alkali halides, and alkaline earth metal halides. Specific salts useful in the present disclosure include, for example, sodium chloride, potassium chloride, potassium bromide, lithium chloride, cesium chloride, and the like. Typically, the cells containing the pressurized gas have a diameter of from about 5 micrometers to about 100 micrometers.

[0099] The substantially non-reactive gas can be infused into the cells of the soluble solid material to produce an effervescent agent useful in the present disclosure by first heating the starting material, such as a sugar, in a small amount of water until the material is dissolved. After dissolution of the material, the water is evaporated off leaving the material in a molten state. The molten material is then gasified by introducing a suitable gas, such as carbon dioxide, at a superatmospheric pressure into a sealed vessel containing the molten material. The molten material is agitated during gasification to ensure intimate contact between the molten material and the gas. Pressures of, for example, between about 50 psig (340 kPa) and about 1000 psig (6890 kPa) can be utilized to infuse the gas into the molten material. After gas infusion, the molten material is allowed to solidify while maintained in the sealed vessel to produce an effervescent agent. A suitable procedure of producing a gas-containing solid material is fully set forth in U.S. Pat. No. 4,289,794, the contents of which are incorporated herein by reference to the extent they are consistent (i.e., not in conflict) herewith. The above procedure can produce solid effervescent agents containing cells of pressurized gas from about 50 psig (340 kPa) to about 900 psig (6200 kPa) that, when exposed to urine or other body exudates, allow the release of the trapped gas. This trapped gas, when released, can interact with the surfactant material described herein. The fizzing element **150** can suitably include from about 0.1 grams to about 15 grams of effervescent solid material containing a pressurized gas.

[0100] In various aspects of the present disclosure, one or more of the substances described herein can be combined in an air laid material or in a coform material and incorporated into the absorbent article **20**. As a specific example, tartaric acid can be combined with a coform on one layer with calcium carbonate on that or another layer. This material will then bubble vigorously when subjected to an aqueous solution. That bubbling is detectable to the wearer of the absorbent article **20** and signals that the absorbent article **20** has been insulted.

[0101] Physical sensation elements of this type are described in more detail in U.S. Pat. No. 7,002,055 to Long et al., the contents of which are incorporated herein by reference to the extent that they are consistent (i.e., not in conflict) herewith. The fizzing element **150** includes a surfactant and a system that, upon wetting with urine or other body exudates, produces a gas, such as carbon dioxide. The gas produced upon wetting with urine or other body exudates interacts with the surfactant to produce foam.

[0102] As noted above, the fizzing element **150** additionally includes a surfactant. The surfactant component is present as a foaming agent. When a gas, such as carbon dioxide, is produced from the gas generating system located in the fizzing element **150**, the gas interacts with the surfactant to produce bubble-filled foam. This bubble-filled foam pushes against the skin of the wearer to alert the wearer to the insult of the absorbent article **20**.

[0103] The surfactant used is not critical so long as it does not substantially irritate the skin upon contact. A wide variety of surfactants can be suitable for use in accordance with the present disclosure. For example, suitable surfactants include anionic surfactants, nonionic surfactants, amphoteric surfactants, cationic surfactants, and combinations thereof. Examples of suitable anionic surfactants include alkyl benzene sulfonates, alkyl sulfates, alkyl ether sulfates, sulfosuccinates, and combinations thereof. Examples of suitable nonionic surfactants include ethoxylated alcohols, fatty acid alkanolamides, ethoxylated alkanolamides, amine oxides, and combinations thereof. Examples of suitable amphoteric surfactants include alkyl betaines, amidobetaines, and combinations thereof. Examples of suitable cationic surfactants include alkylammonium halides. Generally, the fizzing element **150** will include from about 0.1 grams to about 15 grams of surfactant.

[0104] In one aspect of the present disclosure, the components included in the system capable of generating a gas, such as carbon dioxide, upon being wetted and/or the surfactant present in the fizzing element **150** can be encapsulated in a urine-or-other-body-exudates-soluble shell material prior to introduction into the fizzing element **150**. For example, if the